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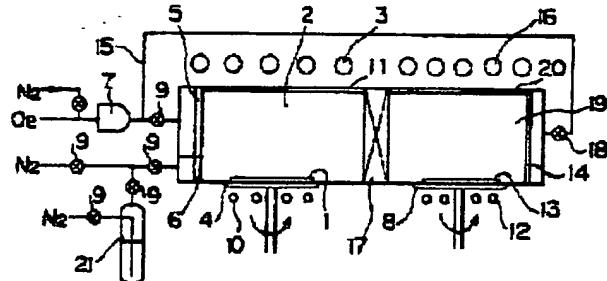
APPLICATION DATE : 19-03-91
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INVENTOR : IWASAKI ATSUSHI;

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TITLE : PHOTO-EXCITED CVD SYSTEM



ABSTRACT : PURPOSE: To provide a photo-excited CVD system capable of cleaning a substrate before a film is formed, forming a film at a high speed and excellently covering a step.

CONSTITUTION: A film forming chamber 2 and an ozone reaction chamber 19 are set with a gate valve 17 in between. Ozone is supplied to the reaction chamber 19 from an ozonizer 7 through a bypass pipeline 15. A substrate 13 is set in the reaction chamber 19, patterned by a photoresist or dry-etched after the patterning and finely worked, the org. matter on the substrate 13 is burnt by the oxygen radical generated by the photo-excited reaction of ozone, and the substrate is cleaned. The cleaned substrate is sent to the film forming chamber 2 via the gate valve 17, ozone is decomposed in the chamber 2 by the UV from a low-pressure mercury lamp 3, and a film of SiO₂, etc., is formed on a substrate 1 from the generated oxygen radical and a silicon source.

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